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MINUTES FROM ENVIRONMENTAL CLEANUP PROJECT TEAM MEETING DATED 3  
FEBRUARY 1999 CNC CHARLESTON SC  
2/3/1999

**Naval Base Charleston  
Environmental Cleanup Project Team  
Meeting Minutes**

**Date:** 3 to 4 Feb 99

**Place:** NH-C/Project Team Room

**Time:** 0800 - 1700

**Attendees:** Tony Hunt, Reece Batten, David Dodds (SDIV); Paul Bergstrand, Johnny Tapia, Ann Clark (DHEC); Dann Spariosu (USEPA); Jeri Johnson (RDA); Tom Fressilli (CSO); Thomas Beisel (CH2MHill); Todd Haverkost, Larry Bowers (EnSafe); Joe Land (GQI)

**Invited Guests:** Jed Heames (DET); Craig Smith (EnSafe)

**Leader:** Paul Bergstrand    **Scribe:** Larry Bowers

**DISCUSSIONS/DECISIONS**

9902-M364	Paul	<b>Check-in</b> <ul style="list-style-type: none"><li>• Review of ground rules.</li><li>• Check in of project team members.</li></ul>
9902-M365	Paul	<b>DHEC Staffing</b> <ul style="list-style-type: none"><li>• Two new engineers are on board to assist PB and JT with the CNC CMS regulatory support effort. Charles Watson (80%) and Susan Peterson (50%). One hydrogeologist has accepted the position (Eric Catcart @ 80%) and a second hydro is soon to be assigned (person will be @ 50%). Recall that a risk assessor (@ 50%) has already been assigned to the CNC effort. Percentages indicate approx. amount of involvement each person will have with the CNC RCRA effort. That is, utilization on project.</li><li>• PB and JT will continue to act as DHEC leads and they will represent the work of these individuals. If work is of a complex or detailed nature, then the individual DHEC person will represent work.</li></ul>
9902-M366	Paul	<b>Introduction of New RAC</b> <ul style="list-style-type: none"><li>• Tom Beisel, P.G., Project Manager, of CH2MHill (Atlanta office) was introduced to the project team. He represents the new RAC that has replaced Bechtel (previous RAC). Team members introduced themselves and their primary functions to Tom.</li></ul>
9902-M367	Joe and Paul	<b>Validate Agenda and Establish Parking Lot Items</b> <ul style="list-style-type: none"><li>• Completed.</li></ul>

9902-M368	Joe and Reece	<b>Dec Project Team Meeting AI Follow-up</b> <ul style="list-style-type: none"> <li>• A205 - an agenda item for this meeting</li> <li>• A206 - done</li> <li>• A207 - to be done today (carry over item)</li> <li>• A208 - done</li> <li>• A209 - will be brought to Apr meeting by PB</li> <li>• A210 - done</li> <li>• A211 - drafted version completed but not ready to go out (soon though)</li> <li>• A212 - all we still have is the general footprint of the overall area and not building- or development-specific locations</li> <li>• A213 - backfill gravel in the SWMU 8 excavation is not expected to adversely impact or restrict overhead lay down development requirements</li> <li>• A214 - an agenda item for this meeting</li> <li>• A215 - done</li> <li>• A216 - done</li> </ul>
9902-M369	Tony	<b>Area 737</b> <ul style="list-style-type: none"> <li>• <b>Clarification required; Area 737 is the 73 acre transfer site in Zone G. It will now be referred to as the SPA (State Port Authority) area.</b></li> <li>• The following sites are located in the SPA area or its adjacent buffer zone.</li> <li>• Zone H: SWMU 9 (really SWMU 20, and AOCs 649, 650, 651) and AOC 653. Zone G: AOC 633, AOC 634 (nfa site), AOC 638 (nfa site), SWMU 8, AOCs 636 and 642, AOCs 637, 643, 653 (SWMUs 6 and 7), UST 224 and UST 641, AOCs 628 and 629 and SWMU 11. Zone F: SWMU 36, SWMU 4 (nfa site), AOCs 619 and 620. Zone I: AST 3909 and UST 123-1.</li> <li>• Jeri wanted to know when a FOSSL would be available for the SPA. TH said about 4 to 6 months.</li> <li>• The Navy proposes to assemble a figure showing RCRA and UST and pipeline sites that are located in the footprint and buffer zone of the SPA. In addition, a list of development restrictions, if any, will be produced for each site.</li> </ul>
9902-M370	Reece	<b>SWMU 8/9</b> <ul style="list-style-type: none"> <li>• Handout provided.</li> <li>• Reece briefed the team on SWMU 8 (and to a lesser extent, SWMU 9) status.</li> <li>• The large trench in SWMU 8 is in the process of being backfilled with gravel and will be clay and soil cover capped. An additional excavation and subsequent product removal effort, SW of the original one, will be completed by Jul 99. Total trench dimensions (including additional excavation) is approx. 100' by 700'.</li> <li>• Vertical risers will be installed along centerline of trench, about 50 to 100' apart. Risers will be 8 to 12' ID and perforated in subsurface area. <b>Team agreed that risers should remain upright (not flush with ground surface) and protective bollards installed.</b> Risers can always be reduced to flush mounts at a later date should the need (re-use requirements) arise, and not vice versa.</li> <li>• SWMU 9 geophysical survey completed and results to be forwarded to SDIV, for SDIV and DHEC review to re-establish landfill boundary. Physical topographic survey will be completed after landfill boundary is re-established by SDIV and DHEC.</li> </ul>

9902-M371	David and Tony	<b>FOST and FOSL</b> <ul style="list-style-type: none"> <li>• FOSL and FOST candidates: CU, marina, CTF and EDC-1</li> <li>• EDC-1 (economic development conveyance) - no restrictions; EDC-2 - RCRA sites identified and IMS done, are now clean or remedial action is currently taking place and site will soon be clean; EDC-3 - CMS sites (thus, remedial alternative not yet identified, evaluated or implemented).</li> <li>• EDC consider all types of sites: RCRA, UST/AST, LBP, asbestos.</li> <li>• Marina waiting completion of Zone I RFI. CU is clean. CTF is a public benefit conveyance to the City of No. Charleston, School District, and the Navy will not be able to demo all tanks due to some unresolved (funding and other?) issues.</li> </ul>
9902-M372	Tony	<b>IC</b> <ul style="list-style-type: none"> <li>• The Navy would like to provide to Tier II an example of IC (institutional controls) for an example area such as Zone A.</li> <li>• Zone A has been selected because of the interest the City of No. Charleston has in Pier A (see last bullet though).</li> <li>• Dann reminded the team that IC should be included in the CMS process and that the CMS will evaluate/estimate the cost of maintaining the IC (for certain sites, such as SWMU 9). Another good example would be SWMU 2. What would be the costs to maintain IC associated with an asphalt cap (as a possible alternative) versus excavation based on lead rgos?</li> <li>• Tony proposed using Zone E (the heavy industrial area) as an example area that will obviously require some IC. Thus, Zone E will likely be the test case (as opposed to Zone A) for IC presentation to Tier II.</li> </ul>
9902-M373	Larry	<b>Waste Consolidation at SWMU 9</b> <ul style="list-style-type: none"> <li>• Handout provided.</li> <li>• Larry briefed the team on an EnSafe position paper that was written regarding the potential benefits (and liabilities) of consolidating (at SWMU 9) low level impacted surface soil obtained throughout CNC. It is anticipated that the final remedial option at many of CNC soil sites will likely consist of a low cost and low technology alternative such as dig-n-haul. Instead of transporting this nonHW material offsite for disposal over a year or two period, how about consolidating the impacted surface soil on top of SMWU 9? And then capping this material due to exposure concerns? Larry requested input from the team regarding concerns associated with the proposed waste consolidation effort.</li> <li>• Several questions arose from the team: Will this proposed effort trigger or reopen landfill operation and permitting requirements (USEPA)? Have you reviewed the new EPA guidance outlining management of remediation waste at RCRA sites (DHEC)?</li> <li>• End result; review recent EPA document (Oct 98) and report back to team as to feasibility of proposal. Likelihood of soil consolidation at SWMU 9 is low.</li> </ul>

9902-M374	Tony	<p><b>Sump PCB labels at SWMU 17</b></p> <ul style="list-style-type: none"> <li>• The likelihood of sumps still containing PCBs (at the 2 ppm level) is low.</li> <li>• PCB warning labels were recently removed.</li> <li>• The sumps (drums) are secured from illicit entry. That is, the bung straps and bolts have been checked and replaced as necessary.</li> <li>• Any excavations completed by SCG&amp;E near the building associated with SWMU 17 will have to be approved and managed by SCG&amp;E H&amp;S personnel. That is, SCG&amp;E is directly responsible for the protection of their people in any trenches they may produce at SWMU 17. SCG&amp;E is also held responsible for its trenches and other people that may come in contact with the trenches (passer-bys and trespassers).</li> <li>• It's an OSHA (H&amp;S) issue and not a RCRA issue.</li> </ul>
9902-M375	Jed	<p><b>DET Update</b></p> <ul style="list-style-type: none"> <li>• Handout provided.</li> <li>• Jed briefed the team on the status of: Zone A grid, AOC 699, SWMU 8, SWMU 166, Zone G grid PCBs, SWMU 11, SWMU 25, SWMU 9, and Bldg. 226.</li> <li>• SWMU 11 SCR now available.</li> <li>• SWMU 9 test pit results done; Tony, Reece and DHEC will redefine SWMU 9 boundary based on the DET activity. Then DET will complete 50' grid topo survey.</li> <li>• Zone A grid report due 19 Apr yet likely avail by Mar.</li> <li>• AOC 699 is in works.</li> <li>• SWMU 8, SDIV approved OK for additional excavation (SW of existing trench). PB would like to see monthly sampling (gaging for product) of stand pipes when they are installed. Determine need for additional product recovery.</li> <li>• SWMU 166 SCR available by 22 Feb.</li> <li>• Zone G grid PCBs SCR is available.</li> <li>• SWMU 11 SCR out 3 Feb.</li> <li>• SWMU 25, WP being submitted for approval to remove electrical vault 7A.</li> <li>• PB asked for a status briefing of the DET, as a group. Jed said the DET will no longer be a civil service agency come Sep 99. The DET hopes to privatize by then and continue to support SDIV and/or other clients.</li> </ul>
9902-M376	Tony	<p><b>IW Issue</b></p> <ul style="list-style-type: none"> <li>• Issue; transfer of property with IW from Navy to State Dept.</li> <li>• MOA; Navy must comply with all BRAC requirements and will provide an EBS to the State Dept (or any other tenant for that matter) prior to property transfer.</li> <li>• State Dept IW installed in '96. We have driller's name, etc.</li> <li>• Bottom line; MOA is protective of IW issue to some extent but dig permits are required by all tenants at CNC, therefore providing the protective coverage sought by the team. However, dig permits are required as long as the CSO exists. When the CSO goes, so does the permit requirement, unless some other permitting authority is in place.</li> </ul>
9902-M377	Ann	<p><b>Tier II Expectations</b></p> <p>Ann posed the following q's to the team.</p> <ul style="list-style-type: none"> <li>• Is there anything I can support you with regarding the Tier II link?</li> <li>• Tier II involvement, how much and how often?</li> <li>• You can vote on this when I am absent if you prefer, but Tier II wants to know who you would like representing your group - Glenn or myself?</li> <li>• <b>Team consensus vote selected Ann to replace as our Tier II link.</b></li> </ul>

9902-M378	Tony	<b>AOC 700</b> <ul style="list-style-type: none"> <li>• Tony presented several figures (via USGS) showing GW flow predictions at AOC 700. It appears that a storm sewer, that runs parallel to Avenue D, tends to skew the GW contours adjacent the site.</li> <li>• Discussion continued regarding GW flow at AOC 700 and it was noted that EnSafe has recently re-evaluated GW flow at this site for the Zone C CMS work plan.</li> <li>• <b>The team agreed that an additional GW well should be located between Building 1646 and Avenue D.</b> This would satisfy DHEC's concern regarding GW characterization associated with Building 1646 former storage activities. Analysis will be for inorganics and pesticides. This effort will be part of the Zone C CMS.</li> </ul>
9902-M379	Larry	<b>TS Update, SWMU 166 and AOC 607</b> <ul style="list-style-type: none"> <li>• SWMU 166; aquifer test is currently taking place.</li> <li>• AOC 607; aquifer test is planned for next week.</li> <li>• Preliminary results (real preliminary) for SWMU 166 - recovery rate for test well is 1 gpm (aquifer capable of several gpm's though, low gpm), drawdown at pump well @ 1 gpm is approx. 4 to 6 feet and drops down to 2 feet or less in adjacent observations wells (radially, about 10 to 25' from pump well), ZOI approximately 200' and in the quarter to 2 inch range.</li> <li>• To soon for update at AOC 607.</li> <li>• Apr team meeting will hear/see more applicable TS updates. It will likely include results of pump tests and GW model, briefing on TS design (layout, key parameters, etc.), and schedule update.</li> </ul>
9902-M380	Team	<b>Meeting Frequency</b> <ul style="list-style-type: none"> <li>• The team agreed to keep the present bi-monthly meeting frequency and increase the use of teleconferences as needed.</li> <li>• The team also agreed to occasionally re-evaluate meeting frequency.</li> </ul>
9902-M381	Larry	<b>SWMU 44 CMS Re-sampling</b> <ul style="list-style-type: none"> <li>• Larry briefed the team on the number of SWMU 44 soil samples required in the Zone C CMS work plan.</li> <li>• A 25' foot grid in the foot print of the excavation area would yield close to 400 sample locations, thus 800 samples (upper and lower per location). A 50' grid would yield about 100 sample locations.</li> <li>• Team input was requested on sampling strategy. Do we go with biased grids or go statistics?</li> <li>• <b>The team agreed that a statistical approach would be best seeming this area was fully disturbed after RFI completion.</b></li> <li>• A sampling strategy figure based on statistics will be provided to the team by 16 Feb and a conference call to discuss such strategy will occur on 24 Feb, 1000 eastern. Don Cooke will set up conference call. Note that Zone C CMS field work is scheduled to begin by 1 Mar 99, thus this issue needs resolution prior to Mar.</li> </ul>

9902-M382	Larry	<ul style="list-style-type: none"> <li>• <b>Handling of Minor Sites at Zone H</b> It was brought to the attention of the team that several Zone H CMS sites (most of the minor sites) should now be considered for NFA or moved directly into the Navy PST program. There is no need to complete a CMS on some of these sites.</li> <li>• This recommendation was based on the fact that CMS data gaps have since been closed and the results of the additional CMS sampling have indicated significant decrease or total elimination of project team designated COCs.</li> <li>• Sites in question include: SWMU 136 and AOC 663 (recommend transfer from CMS to PST program), SWMU 159 (rec. NFA), AOC 653 (rec. NFA), AOC 655 (rec. transfer from CMS to PST program), AOC 656 (rec. NFA), and AOC 666 (rec. transfer from CMS to PST program).</li> <li>• <b>The project team agreed to the following process to handle these types of sites:</b> 1) If DET ISM completed at site, then site must remain in CMS report - the CMS report will essentially summarize the results of the DET ISM and based on CMS data gap results will conclude a NFA for the site - no remedial alternatives will be identified, evaluated or ranked - no SOB will be written - because these elements of the CMS would NOT be applicable. 2) If no DET ISM completed at site, then the site will be removed from the CMS process via a memo (site summary, CMS data results, rationale for NFA advocacy, etc.) to DHEC - the CMS report will refer to this memo and designate the site as NFA - no remedial alternatives will be identified, evaluated or ranked - no SOB would be written - because these elements of the CMS would NOT be applicable.</li> </ul>
9902-M383	David	<p><b>SWMU 166 and MNA</b></p> <ul style="list-style-type: none"> <li>• It was agreed that David and Larry (plus Ronnie, Charlie and Todd K. - EnSafe MNA) would hold a conference call on 8 Feb to discuss MNA and TS start/stop protocol for SWMU 166 and AOC 607.</li> <li>• The intent of the discussion would be to clarify when MNA would cease during TS work, when it would restart after the TS, its estimated duration post-TS, and post-TS areas of influence that will require MNA re-base lining. Proposal is to be provided to DHEC by 22 Feb for conference call on 24 Feb. Time of 24 Feb conference call has not been established, but Charlie will lead this effort. Participants will be DHEC, David, Larry, Ronnie, Charlie and/or Todd K.</li> </ul>

9902-M384	Joe	<b>Team Training/Mission Vision Goals (MVG)</b> <ul style="list-style-type: none"> <li>• A revisit to our Vision and Mission statements produced the following.</li> <li>• <b>Vision: To accomplish our mission we will be innovative, manage risk, make decisions, expedite transfer, improve teamwork, establish and meet milestones, and be responsive to community needs.</b></li> <li>• <b>Mission: The mission of the Charleston Naval Complex Environmental Clean-up Team is to return the former base to the community through effective, efficient and expedited clean-up ensuring protection of human health and the environment.</b></li> <li>• Exercise; Joe requested that everyone list their project-related goals for the next 18 months. That is, what would you like to see accomplished in the next 18 months. List 5 goals per person.</li> <li>• The team then was divided into two groups and each group sorted their goals based on commonality. The list of goals generated by each group was then reviewed by the entire team and discussions ensued. Where are we heading? What can we do to better reach that end point? etc.</li> <li>• Examples: complete RFI phase by Jan, expedite FOST/FOSL process, remedy selected and in place at 166/607 by Aug 00, complete 50% of CMS by Aug 00, etc.</li> <li>• Exercise provided a focus point for near and long term goals; attainable goals with team consensus.</li> </ul>
9902-M385	Craig	<b>AOC 680/681 Update</b> <ul style="list-style-type: none"> <li>• Handouts provided.</li> <li>• AOC 678/679: GW - Well 001 sampled twice and ND for VOCs, inorganics (arsenic) at 5.3 ppb yet well below MCL. Soil - Boring 003 at 678 detected BEQ &gt; RBC but &lt; SSL, and GW at nearby well 002 was ND for BEQ. Recommend NFA for site.</li> <li>• AOC 680: GW and soil - Additional well, 680 004 was added. Soil at boring 005 had low levels of DCE but adjacent new well 004 was ND for VOCs.</li> <li>• AOC 681: Three OW separators present at site. Some surface soil did appear impacted but subsurface soil was not. A potential 2<sup>nd</sup> source exists.</li> <li>• Revised RFI, Zone I, to be completed by mid February.</li> <li>• Addendum package with latest results will follow distribution of RFI report.</li> </ul>
9902-M386	Tony	<b>CAMP</b> <ul style="list-style-type: none"> <li>• The CAMP (Corrective Action Management Plan) was revised via support and input from all team members.</li> <li>• The CAMP includes status of RFI and CMS efforts, action required, and responsible entity.</li> <li>• Tony will modify/update existing CAMP based on today's input and transmit new CAMP to team members by 12 Feb.</li> </ul>
9902-M387	Tony	<b>SWMU 39 Off-site Well</b> <ul style="list-style-type: none"> <li>• Tony discussed the purpose and scope of the diffusion samplers to be used at SWMU 39. DHEC expressed concern about the need for additional sampling points west of the west property line (near tributary of Noisette Creek). Navy questioned the value of this type of data seeming it was obvious that VOCs were at the property boundary yet not at the offsite well west of the tributary.</li> <li>• The Navy proposed using the VB diffusion samplers in all the SMWU 39 perimeter wells and possibly all the other SWMU 39 wells. Tony suggested that Mr. VB could come down from Columbia for the next team meeting in Apr and provide a briefing on the samplers, their intended purpose, their benefits, etc.</li> <li>• It was concluded that Mr. VB would be asked to brief the team on the VB samplers during the Apr team meeting.</li> </ul>



9902-M388	Tony	<b>AOC 646 and Building 3906 at CTF</b> <ul style="list-style-type: none"> <li>• COC was BEQ, I risk at 3.9E-7 and R risk at 1.9E-6, surface soil, 4 samples (upper and lower).</li> <li>• Question to team: What do you think about site risk and presence of building among tanks?</li> <li>• DEHC response: Take building out. Demo it. No problem with risk seeming it all stems from BEQs.</li> <li>• <b>Team consensus; NFA AOC 646 and demo building.</b></li> </ul>
9902-M389	Tony	<b>FOST and FOSL Revisited</b> <ul style="list-style-type: none"> <li>• Marina, CU, CTF; FOST by Apr 99</li> <li>• Marina: some inorganics in GW</li> <li>• CTF: other than an IR site in center, its ready to go</li> <li>• CU: clean, center of Zone D (parking lot and warehouses)</li> <li>• EDC-1: FOST Jun 99</li> </ul>
9902-M390	Joe	<b>Close and Wrap-up</b> <b>Plus</b> <ul style="list-style-type: none"> <li>• schedule update</li> <li>• mission vision goals exercise</li> <li>• DET update</li> <li>• Team leader ran tight ship</li> <li>• timer/clock</li> <li>• FOST/FOSL issues</li> <li>• agenda building</li> <li>• team lunch out</li> <li>• Tier II resolution</li> <li>• RAC (CH2MHill) presenc</li> <li>• DHEC staffing increase</li> <li>• Dann's new BMW</li> </ul> <b>Negative</b> <ul style="list-style-type: none"> <li>• timer/clock</li> <li>• room temperature</li> <li>• agenda/acronym confusion</li> <li>• lack of specific names on agenda items</li> <li>• go to all members for ideas (quiet group in rear)</li> <li>• DHEC staffing not yet fully completed (2<sup>nd</sup> hydrogeologist not identified or placed)</li> <li>• no rides in Dann's new BMW</li> </ul>

### Action Items

9902-A217	Tony	Check status of FOSL for SPA area. By 19 Feb.
9902-A218	Tony	Provide list of proposed sites (RCRA, UST, pipeline) and redevelopment restrictions for SPA area to team. By 5 Feb.
9902-A219	Tony	Respond to the RDA regarding aforementioned AI. By 19 Feb.
9902-A220	Dann, Ann, and Tony	Complete scoping meeting to clarify/pin down FOST language. By 24 Feb.
9902-A221	Dann	Speak with EPA attorneys regarding FOST language and development of baseline transfer document. By 29 Feb.
9902-A222	David	Draft LUR/IC for CIA (with EnSafe support if needed). By 26 Feb.
9902-A223	Johnny	Forward EPA RCRA Waste Management guidelines to team. Review applicability for potential soil consolidation at SWMU 9. By 15 Feb.
9902-A224	Tony	Check with CSO regarding IW letter to tenants. By 15 Feb.
9902-A225	Larry	Don Cooke will determine a statistically defensible sampling strategy for SWMU 44 CMS effort. Figure with sampling points will be forwarded to team by 16 Feb and conference call will commence on 24 Feb at 1000 eastern. Don will coordinate figure distribution and call.
9902-A226	David	Submit TS and MNA start/stop protocol to DHEC by 22 Feb for conference call on 24 Feb. EnSafe (Ronnie, Todd K. and Charlie) will support. No time set yet for conference call, David will coordinate.
9902-A227	Tony	Submit VB sampler protocol at SWMU 39 (GW and gas) to DHEC. By 1 Mar.
9902-A228	Todd	Develop poster of team mission statement for wall. Confirm final mission statement with Joe Land and/or Tony. By Apr team meeting.
9902-A229	Tony/David	AOC 681, Navy will review and propose action required for this site (such as DET ISM or additional characterization work). To team by 18 Feb.
9902-A230	Tony/David	EDC-1 Figure completion. By Apr 99.
9902-A231	David	Propose SWMU 8 data needs. By 26 Feb.